untranslated sequence being devoid of a sequence encoding a translational initiation codon, the construct also including a 3' untranslated sequence downstream of position 2204, the 3' untranslated region comprising a eukaryotic polyadenylation sequence, where the host cells are cultured under conditions providing for the expression and secretion of the glycoprotein into a culture medium; and

recovering the glycoprotein from the culture medium.

19. (New) The method of claim 18 in which said eukaryotic host cells are baby hamster kidney cells.

A5 CON't.

20. (New) The method of claim 19 further comprising transforming the host cells with a DNA sequence encoding dihydrofolate reductase and where the host cells are treated with methotrexate prior to recovering the glycoprotein from the culture medium.

21. (New) The method of claim 20 wherein the host cells are treated with a concentration of methotrexate of about 10 μM to about 10 mM; and wherein cells that continue to grow after methotrexate treatment are selected to establish a stable cell culture.

22. (New) The method of claim 21 wherein the host cells are treated with a first concentration of methotrexate of about 1 μM to about 10 mM prior to being treated with a second concentration of methotrexate, the second concentration being lower than the first concentration.

23. (New) The method of claim 22 wherein the second concentration of methotrexate is about 1 μM to about 1 mM.

24. (New) The method of claim 18 wherein the DNA construct includes an adenoviurs major late promoter as the eukaryotic promoter operably linked to the insert.

[redacted]

25. (New) The method of claim 18 wherein the DNA construct includes a metalothionein promoter as the eukaryotic promoter operably linked to the insert.

26. (New) The method of claim 18 wherein titers of said glycoprotein of at least two million units of erythropoietin activity per liter of culture medium are obtained, the units of activity being measured by a radioimmune assay using a mammalian erythropoietin as a standard.

A5 Cont'd

27. (New) A method of making a glycoprotein exhibiting erythropoiesis regulating activity comprising:

culturing eukaryotic host cells transformed with a DNA construct comprising an insert consisting essentially of the sequence according to SEQ ID NO:1 under conditions providing for the expression and secretion of a glycoprotein into the culture medium; and

recovering said glycoprotein from the culture medium.

28. (New) The method of claim 27 wherein the cells are stably transformed and the glycoprotein is produced at a level of about 500 to about 7000 units per ml of culture medium, the units being determined by an in vitro erythroid colony forming bioassay using mouse bone marrow cells and partially purified sheep erythropoietin as a comparative standard.

29. (New) The method of claim 27 wherein the cells are stably transformed and the glycoprotein is produced at a level of about 6 to about 85 μg per ml of culture medium.

30. (New) The method of claim 27 in which said eukaryotic host cells are baby hamster kidney cells.

31. (New) A method of making a glycoprotein exhibiting erythropoiesis regulating activity comprising:

culturing eukaryotic host cells transformed with a DNA construct comprising an insert consisting essentially of the sequence according to SEQ ID NO:1, an adenoviurs-2 major

later promoter sequence, an adenovirus-2 tripartite leader and third leader 5' splice sequence, an immunoglobulin 3' splice sequence and a late SV-40 polyadenylation signal sequence, the insert being operably linked downstream of the adenoviurs-2 major later promoter sequence and upstream of the immunoglobulin 3' splice site to provide for the expression and secretion of the glycoprotein into a culture medium; and

recovering said glycoprotein from the culture medium.

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32. (New) The method of claim 29 in which said eukaryotic host cells are baby hamster kidney cells.

33. (New) A method of making a glycoprotein exhibiting erythropoiesis regulating activity comprising:

culturing eukaryotic host cells transformed with a DNA construct comprising an insert consisting essentially of the sequence according to SEQ ID NO:1 and a metalothionein promoter operably linked to the insert to provide expression and secretion of a glycoprotein into the culture medium; and

recovering the glycoprotein from the culture medium.

34. (New) A glycoprotein exhibiting erythropoiesis regulating activity produced by the method of claim 10.

35. (New) A glycoprotein exhibiting erythropoiesis regulating activity produced by the method of claim 18.

36. (New) A glycoprotein exhibiting erythropoiesis regulating activity produced by the method of claim 27.

37. (New) The glycoprotein according to claim 36 wherein the glycoprotein exhibits microheterogeneity in size when analyzed by SDS polyacrylamide gel electrophoresis, and where a first pattern of bands of the glycoprotein detected by Coomassie staining of the SDS

[redacted]

polyacrylamide gel comigrates with a second pattern of bands detected when erythropoietin purified from the urine of a patient with aplastic anemia is analyzed by SDS polyacrylamide gel electrophoresis.

A5 cont'd

38. (New) A glycoprotein exhibiting erythropoiesis regulating activity produced by the method of claim 31.

39. (New) A glycoprotein exhibiting erythropoiesis regulating activity produced by the method of claim 33.

[redacted]